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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,730	07/24/2001	Engelbert Locher	22750/494	5592
26646	7590	04/27/2004	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			AFTERGUT, JEFF H	
			ART UNIT	PAPER NUMBER
			1733	
DATE MAILED: 04/27/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/911,730

Applicant(s)

LOCHER ET AL.

Examiner

Jeff H. Aftergut

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 9-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 is/are allowed.
- 6) ☐ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

1. This application contains claims 9-29 drawn to an invention nonelected with traverse in the response dated 11-6-03. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
2. Claims 9-29 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the response dated 11-6-03.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art, Reba et al and Weng et al (newly cited).

The references to the admitted prior art and Reba et al are discussed in detail in the Office action dated 12-11-03 in paragraph 6 and applicant is referred to the same for a complete discussion of these references. These references failed to teach that one skilled in the art at the time the invention was made would have directed the oscillation of the filaments in Reba et al to be laterally crosswise to the production direction of the spunbonded fabric as now claimed. The applicant is advised, however, that one skilled in the art of manufacturing a spunbonded with the system of Reba et al would have readily appreciated that the orientation of the nozzles would have been redirected to provide such

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perpendicular oscillation of the spun filaments in light of the suggestion by Weng et al to perform the same.

More specifically, Weng et al suggested that those skilled in the art would have oscillated the filaments in a direction perpendicular to the direction of fabric formation (using a pulsing electric charge to do the same rather than pulsing air blasts) in order to produce a spunbonded fabric which had a more uniformity in strength in both the cross machine direction and in the machine direction. Applicant is more specifically referred to column 1, lines 60-64, column 2, lines 33-37, and column 4, lines 16-23. while the reference to Weng et al performed the oscillation via electrostatic charge pulsing, one skilled in the art at the time the invention was made would have readily appreciated that the when one desired to attain more strength in the cross machine direction one would have redirected the airflow such that it was perpendicular to the machine direction to provide for oscillation in this direction as suggested by Weng et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to redirect the pulsing air jets of Reba et al to provide one with improved cross machine direction strength as suggested by Weng et al in the process of making a spunbonded web as suggested by the admitted prior art.

Applicant is referred to paragraph 4 of the Office action dated 12-11-03 for a complete discussion of the dependent claims. With respect to claim 5, it should be noted that claim 5 previously depended upon claim 4 which recited that the blow out angle in the horizontal plane was 15 degrees. The applicant has not included this limitation in claim 5 in making the claim an independent claim. It should be noted that the prior art to Reba applied the air jet in pulsing fashion in a vertical direction against the filaments to

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redirect and oscillate the same. additionally, regarding claim 6 (which likewise fails to mention that the air was directed against the filaments in the horizontal plane at an angle of 15 degrees as it previously required as being dependent upon claim 5 which depended upon claim 4), one skilled in the art would have determined through routine experimentation the proper angle that the air jets would have been determined. It should be noted that as depicted in the Figures Reba appears to provide an angle of approximately 20 degrees however one skilled in the art would have readily understood that the angle would have been varied in order to vary the degree of oscillation and the ultimate angle provided for was a function of such oscillation.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 4 further taken with German Patent 2114854 for the same reasons as addressed in paragraph 6 of the Office action dated 12-1-03.

Applicant is advised that the use of an air jet which was disposed in the horizontal plane to redirect the filaments was known per se as evidenced by German Patent '854 and to incorporate such horizontally disposed air jets in the process would have been within the purview of the ordinary artisan as long as the air jets directed the filaments in a direction of oscillation which was transverse to the production direction of the fabric (as such would have imparted improved transverse strength to the final nonwoven web as evidenced by Weng et al).

Allowable Subject Matter

6. Claim 4 is allowed.

None of the prior art of record suggested that one skilled in the art at the time the invention was made would have incorporated a horizontally disposed air flow which was at an angle of 15 degrees as now claimed.

Response to Arguments

7. Applicant's arguments with respect to claims 1-3, 7, and 8 have been considered but are moot in view of the new ground(s) of rejection.

It should be noted that claims 5 and 6 have been amended by applicant, but that they have not been amended to include all of the limitations from the claims from which they previously depended. As such applicant is advised that the newly presented combination of subject matter has been rejected over the prior art for the reasons identified above.

Regarding the prior art applied above, the applicant essentially argues that none of the prior art of record taught or suggested that one would have oscillated the filaments in the cross machine direction to the production direction of the nonwoven. It is not clear from Reba et al whether the filaments are redirected in this fashion or not, however, to redirect the filaments and oscillate the same in the manner described would have been within the purview of the ordinary artisan as suggested by Weng et al wherein the oscillation of the filaments in the fashion claimed would have resulted in a nonwoven spunbonded web with enhanced cross machine direction strength. While Weng et al did not employ the air jets in this manner, one skilled in the art at the time the invention was made would have understood that the air jets would have been repositioned so as to oscillate the filaments perpendicular to the machine direction of production in order to product a nonwoven web which had improved strength in the cross machine direction.

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Applicant is advised that one skilled in the art would have been motivated to produce a uniform web with enhanced strength in the cross machine direction and as such would have understood to oscillate the stream of filaments transverse to the machine direction.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:15-345 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeff H. Aftergut
Primary Examiner
Art Unit 1733

JHA
April 22, 2004